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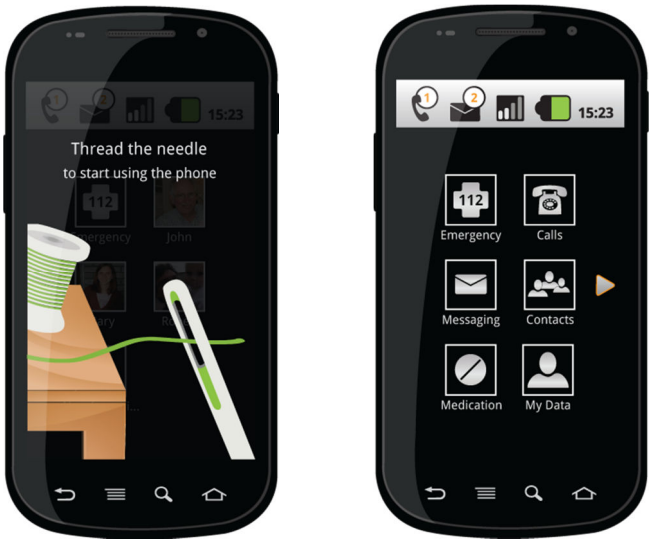

Fig. 1: Unlocker and home screens.

SMART COMPANION

A MOBILE COMPANION FOR OLDER ADULTS

Smart Companion is an Android customization that was specially designed to address seniors' goals and needs. It aims to be a permanently available companion to support seniors in their daily activities, through a number of tools, from messaging to music player applications.

The Opportunity

Technology can bring numerous benefits to seniors. However, unless interfaces consider their characteristics, advantages are likely to be missed.

Mobile phones, for example, have great acceptance rates among older adults. Nevertheless, due to the disregard for seniors' characteristics during the design of mobile phone user interfaces, these users often can only perform a very limited number of tasks, such as receiving and making calls.

The most recent generation of mobile phones, known as smartphones, may allow for a more natural and intuitive interaction due to their touch-based user interfaces. For this reason, Smartphones have the potential to nurture the integration of older adults into the information society, for instance, by giving them access to Web services.

Smart Companion was created in order to enable seniors not only to perform common mobile phone tasks, such as sending messages, but also to provide a companion that supports their daily activities.

Contact

Rua Alfredo Allen 455
4200-135 Porto, Portugal

Phone +351 220 408 300
Fax +351 226 005 029
info@fraunhofer.pt
www.fraunhofer.pt

Applications

Smart Companion is still under development, but already includes:

- Calls
- Voice and Text Messages
- Contacts Management
- Quick Emergency Call
- Music Player
- Radio Player

Senior 'friendly' UI

Smart Companion was designed considering seniors' needs and goals. Thus, a number of screens, for instance to send a text message, were redesigned to better fit their needs. In addition, voice messages were added to enable asynchronous communication to users who cannot type.

Regarding user interface design, this project, uses: i) a very large font size, to provide legibility; ii) strongly sequential workflows, to reduce confusion caused by too many options; iii) icons and labels in accordance with the mental models of seniors, to avoid misunderstandings; and iv) buttons for every gesture action available for less dexterous fingers.

Approach

This project followed a User-Centred Design, a methodology that puts the user at the centre of the design process.

A typical development cycle begins with a user research phase (informed, for example, by a literature review, informal interviews, and questionnaires), followed by the creation of low-fidelity prototypes, which are iteratively evaluated through usability tests with end users.

More than 40 usability tests have been conducted to gather feedback from end users over the course of the Smart Companion project. Among other details, tests evaluated Smart Companion´s content, information architecture, and visual and interaction design.

Future Work

As of this moment, Smart Companion allows the user to easily: i) unlock the phone, ii) call relatives and friends, iii) send voice and text messages, iv) manage contacts, v) call the emergency line, vi) launch applications, and vii) listen to music and radio.

Fig. 2: Voice message confirmation screen.

Besides the currently available applications, Smart Companion will expand to support the needs of older adults in areas such as:

- Prevention of isolation – by providing better communication tools such as videoconference or storytelling;
- Promotion of autonomy and quality of life – by giving access to relevant information like to-do lists, weather forecasts, trip planners, or reminders;
- Improving health management – by enabling monitoring, cognitive stimulation or medication reminders.